CLAIMS

1. A primary/secondary surge protector circuit for protecting telecommunications equipment and the like from power and transient surges, comprising:

a printed circuit board;

surge protector means;

said surge protector means being mounted on said printed circuit board;

said printed circuit board having at least one tip conducted trace formed on its surface and extending between an input terminal pin and a first internal node and having at least one ring conductive trace formed on its top surface and extending between an input ring terminal pin and a second internal node;

said surge protector means including voltage suppressor means operatively connected to said tip conductive trace at said first node and to said ring conductive trace at said second node; and

said tip and ring conductive traces defining fusible links which are opened when an excessive current is passed therethrough.

2. A primary/secondary surge protector circuit as claimed in Claim 1, wherein each of said tip and ring conductive traces has uniform width and height dimensions.

3. A primary/secondary surge protector circuit as claimed in Claim 1, wherein each of said tip and ring conductive traces has a first wider section, a second narrow section, and a third wider section, said second narrow section being interconnected between said first and third wider sections.

4. A primary/secondary surge protector circuit as claimed in Claim 2, wherein said width and height dimensions of said tip and ring conductive traces are selected so as to correspond to a particular gauged wire size.

5. A primary/secondary surge protector circuit as claimed in Claim 3, wherein said second narrow section of said tip and ring conductive traces has width and height dimensions which are selected so as to correspond to a particular gauge wire size.

6. A primary/secondary surge protector circuit as claimed in Claim 1, wherein said voltage suppressor means is comprised of a silicon avalanche suppressor.

7. A primary/secondary surge protector circuit as claimed in Claim 1, wherein said voltage suppressor means is comprised of a sidactor.

8. A primary/secondary surge protector circuit as claimed in Claim 1, wherein said voltage suppressor means is comprised of a gas discharge tube.

9. A primary/secondary surge protector circuit as claimed in Claim 4, wherein said width dimension is approximately .040 inches and wherein said height dimension is approximately .0028 inches.

10. A primary/secondary surge protector circuit as claimed in Claim 5, wherein said width dimension is approximately .020 inches and wherein said height dimension approximately .0028 inches.

11. A primary/secondary surge protector circuit for protecting telecommunications equipment and the like from power and transient surges, comprising:

a printed circuit board;

surge protector means;

said surge protector means being mounted on said printed circuit board;

said printed circuit board having at least one tip conducted trace formed on its surface and extending between an input terminal pin and a first internal node and having at least one ring conductive trace formed on its top surface and extending between an input ring terminal pin and a second internal node;

said surge protector means including voltage suppressor means operatively connected to said tip conductive trace at said first node and to said ring conductive trace at said second node;

said surge protector means further including a first heat coil operatively connected also to said first internal node downstream of said tip conductive trace and a second

heat coil operatively connected also to said second internal node downstream of said ring conductive trace; and

said tip and ring conductive traces defining fusible links which are opened when an excessive current is passed therethrough.

12. A primary/secondary surge protector circuit as claimed in Claim 11, wherein each of said tip and ring conductive traces has uniform width and height dimensions.

13. A primary/secondary surge protector circuit as claimed in Claim 11, wherein each of said tip and ring conductive traces has a first wider section, a second narrow section, and a third wider section, said second narrow section being interconnected between said first and third wider sections.

14. A primary/secondary surge protector circuit as claimed in Claim 12, wherein said width and height dimensions of said tip and ring conductive traces are selected so as to correspond to a particular gauged wire size.

15. A primary/secondary surge protector circuit as claimed in Claim 13, wherein said second narrow section of said tip and ring conductive traces has width and height dimensions which are selected so as to correspond to a particular gauge wire size.

16. A primary/secondary surge protector circuit for protecting telecommunications equipment and the like from power and transient surges, comprising:

a tip conductive trace formed on a surface of a printed circuit board;

a ring conductive trace formed also on the surface of the printed circuit board;

voltage suppressor means operatively connected between said tip and ring conductor traces for conducting in response to an excessive voltage applied across said tip and ring conductive traces; and

said tip and ring conductive traces defining fusible links which are opened when an excessive current is passed therethrough.

17. A primary/secondary surge protector circuit as claimed in Claim 16, wherein each of said tip and ring conductive traces has uniform width and height dimensions.

18. A primary/secondary surge protector circuit as claimed in Claim 16, wherein each of said tip and ring conductive traces has a

first wider section, a second narrow section, and a third wider section, said second narrow section being interconnected between said first and third wider sections.

19. A primary/secondary surge protector circuit as claimed in Claim 17, wherein said width and height dimensions of said tip and ring conductive traces are selected so as to correspond to a particular gauged wire size.

20. A primary/secondary surge protector circuit as claimed in Claim 18, wherein said second narrow section of said tip and ring conductive traces has width and height dimensions which are selected so as to correspond to a particular gauge wire size.